

Integrated Cave Entrance Community and Cave Environment Long-Term Monitoring Protocol

Appendix H: Memorandum of Agreement

Version 1.0

Revision History Log

Previous Version	Revision Date	Author	Changes Made	Reason for Change	New Version

This document contains the Memorandum of Agreement between The United States Department of the Interior-National Park Service Klamath Network Inventory and Monitoring Program, Lava Beds National Monument, and Oregon Caves National Monument.

Memorandum of Agreement
between
The United States Department of the Interior-National Park Service Parties
Klamath Network Inventory and Monitoring Program,
Lava Beds National Monument,
and
Oregon Caves National Monument

This Agreement is entered into by and between the Klamath Network Inventory and Monitoring Program (hereafter KLMN), United States Department of the Interior, acting through its Program Manager; Lava Beds National Monument (hereafter LABE), acting through its Superintendent; and Oregon Caves National Monument (hereafter ORCA), acting through its Superintendent.

ARTICLE I – BACKGROUND AND OBJECTIVES

The Caves Communities and Environment Vital Signs Monitoring Program

The goal of this Agreement is to establish the roles, responsibilities, and fiscal and staffing commitments necessary to support long-term monitoring of cave ecosystems in the parks under the Cave Monitoring Protocol (Krejca et al. In Prep.) prepared by the KLMN and the two monuments. This is a multiyear effort that will leverage the skills and experience of KLMN, LABE, and ORCA staff in a collaborative monitoring effort. The protocol monitoring objectives are to:

1. *Monitor the status and trends of human impacts.*
2. *Monitor the status and trends of focal species and communities.*
3. *Monitor the status and trends of groundwater/ice resources.*
4. *Monitor the status and trends of cave climate.*
5. *Analyze trends in each parameter across monitored caves and use this dataset to make inferences across all caves.*

Recognizing the limited funding and staffing resources available for long-term monitoring, the KLMN cave monitoring protocol will address these objectives by monitoring four abiotic and four biotic parameters that target important resources or potential sources of impact and disturbance.

Staffing Needs

To implement the protocol as planned will require substantial and consistent funding and staffing commitments over time by all partners. Activities related to cave monitoring will take place throughout the year, although the majority will be concentrated between April and September when the parks receive the most visitors and seasonal technicians are most available. Consequently, a combination of summer seasonal and year-round staff will be needed.

The Project Lead is a KLMN scientist/program manager who will be in charge of overall project oversight. This position and the Data Manager are base-funded by the program. A single park-based GS-9 Cave Specialist will serve as the Field Lead for all activities in both parks. At the initiation of this agreement, this position is based at LABE, but in future years it could be based at either park. This person will be funded by the KLMN in even years and the resident park in odd years. This person will oversee scheduling, hiring, training, and ensuring SOPs are followed.

During odd years, park-based staff will implement selected elements of the protocol, fully funded by the appropriate park. In even years, monitoring efforts will be supplemented with Klamath Network funding and additional staff. Projected budget allocations by KLMN staff estimate that \$67-\$76k will be available to support park-based and seasonal cave monitoring staff in even years. ***It bears highlighting that the staffing commitments for the two parks will be approximately \$30-\$33k for LABE and \$15-16.5k for ORCA in each of the odd years over the next 6 years.***

In summary, the KLMN will provide base-funded senior science staff to provide project oversight and to lead data analysis and reporting. Park-based specialists will be supported in odd years by the parks and in even years by the KLMN, and seasonal technicians hired in even years will be supported by KLMN exclusively. Table 2 summarizes projected staff costs for implementing the monitoring program from FY2012 to FY 2016.

MEMORANDUM OF AGREEMENT-CAVE MONITORING

Table 1. Funding projection for staffing and costs for implementing the monitoring program from FY 2012 to FY 2016. Salary costs and income are projected to increase 5% per year.

	Position	Pay Scale and Pay Periods (even years)	Pay Scale and Pay Periods (odd years)	Salary and Benefits per PP (FY2012 Projected)	2012	2013	2014	2015	2016
Income									
KLMN Caves Budget Allocation					\$67,334	\$0	\$71,434	\$0	\$75,785
KLMN Base					\$16,971	\$5,591	\$18,668	\$6,150	\$20,535
LABE Base						\$30,000		\$33,000	
ORCA Base						\$15,000		\$16,500	
Total Income					\$84,305	\$50,591	\$90,102	\$55,650	\$96,320
Expenses									
KLMN Personnel	Project Lead	GS-12 (3.0 pp)	GS-12 (0.5 pp)	\$3,993	\$11,979	\$2,096	\$13,177	\$2,306	\$14,495
	Data Manager	GS-11 (1.5 pp)	GS-11 (1.0 pp)	\$3,328	\$4,992	\$3,494	\$5,491	\$3,844	\$6,040
KLMN Staff Subtotal					\$16,971	\$5,591	\$18,668	\$6,150	\$20,535
LABE Personnel	Cave Specialist	GS-9 (2 pp)	GS-9 (5 pp)	\$2,753	\$5,506	\$14,453	\$6,057	\$15,899	\$6,662
	Field Leader	GS-7 (8 pp)	GS-7 (5 pp)	\$2,601	\$20,808	\$13,655	\$22,889	\$15,021	\$25,178
	Field Crew	GS-5 (8 pp)		\$1,533	\$12,264	\$0	\$13,490	\$0	\$14,839
LABE Staff Subtotal					\$38,578	\$28,109	\$42,436	\$30,919	\$46,679
ORCA Personnel	Field Leader	GS-7 (4 pp)	GS-7 (3 pp)	\$2,601	\$5,202	\$8,193	\$5,722	\$9,012	\$6,294
	Field Crew	GS-5 (4 pp)	GS-5 (3 pp)	\$1,533	\$12,264	\$4,829	\$13,490	\$5,312	\$14,839
ORCA Staff Subtotal					\$17,466	\$13,022	\$19,213	\$14,324	\$21,134
Other									
	Field Equipment			\$2,500	\$2,500		\$2,652		\$2,814
	Vehicles			\$3,500	\$3,500	\$2,000	\$3,713	\$2,200	\$3,939
Other Expenses					\$6,000	\$2,000	\$6,365	\$2,200	\$6,753
Total Expenses					\$79,015	\$48,721	\$86,682	\$53,593	\$95,101
KLMN Contribution					\$79,015	\$5,591	\$86,682	\$6,150	\$95,101
LABE Contribution						\$28,109		\$30,919	
ORCA Contribution						\$13,022		\$14,324	
Balance					\$5,290	\$1,869	\$3,421	\$2,056	\$1,219

ARTICLE II – STATEMENT OF WORK

A. The KLMN will:

1. Provide funding in even years at a specified level as supported by the Board of Directors of the Klamath Network. This is expected to be between \$60-80k. A portion of this funding will be designated to support purchase and replacement of necessary field equipment.
2. Provide funding, supervision, and logistical support for a two person crew for the summer season in even years to conduct field sampling.
3. Provide the Network Program Manager as Project Lead to provide training and supervision to crew and to lead reporting efforts for Biennial and Analysis and Synthesis Reports.
4. Provide the Network Data Manager to help develop protocol databases and data management activities.

B. LABE will:

1. Provide a GS-09 Cave Specialist and GS-07 Field Lead to conduct sampling in odd years and to lead or support efforts in even years.
2. Provide housing or camping facilities for field crews when conducting monitoring in the park.
3. Provide timely Annual Reports at the conclusion of the field season in odd years as specified in the Cave Community and Environment Monitoring Protocol (Krejca et al. In Prep.).
4. Provide training and guidance to field crews at the onset of each even field season as well as on-site supervision.
5. Provide timely review or co-authorship of Biennial and Analysis and Synthesis Reports prepared by KLMN staff.
6. Acknowledge the KLMN on any scientific or non-technical documents arising from the monitoring program.

B. ORCA will:

1. Provide a GS-07/09 Cave Specialist and GS-05 Field Technician to conduct sampling in odd years and to lead or support efforts in even years.
2. Provide housing or camping facilities for field crews when conducting monitoring in the park.
3. Provide timely Annual Reports at the conclusion of the field season in odd years as specified in the Cave Community and Environment Monitoring Protocol (Krejca et al. In Prep.).
4. Provide training and guidance to field crews at the onset of each even field season as well as on-site supervision.
5. Provide timely review or co-authorship of Biennial and Analysis and Synthesis Reports prepared by KLMN staff.
6. Acknowledge the KLMN on any scientific or non-technical documents arising from the monitoring program.

ARTICLE III – TERM OF AGREEMENT

This Agreement will be effective for a period of 10 years from the date of final signature, unless it is terminated earlier by one of the parties pursuant to Article IX that follows.

ARTICLE IV – KEY OFFICIALS

- A. Key officials are essential to ensure maximum coordination and communication between the parties and the work being performed. They are:
 - 1. **For KLMN:**
Agreements Technical Representative
Klamath Network Program Manager (Daniel Sarr)
1250 Siskiyou Blvd.
Ashland, Oregon 97520-5011
Telephone: (541) 552-8575
Facsimile: (541) 552-6329
 - 2. **For LABE:**
Superintendent (Dave Kruse)
Lava Beds National Monument
1 Indian Well Hqtrs.
Tulelake, CA 96134
Telephone: (530) 667-8106
Facsimile: (530) 667-2737
 - 3. **For ORCA:**
Superintendent (Vicki J. Snitzler)
Oregon Caves National Monument
19000 Caves Highway
Cave Junction, OR 97523
Telephone: (541) 592-2100
Facsimile: (541) 592-3981

ARTICLE V – MODIFICATION AND TERMINATION

- A. This Agreement may be modified only by a written instrument executed by all parties.
- B. Any party may terminate this Agreement by submitting a formal petition with rationale to the Klamath Network Board of Directors at least 6 months before the beginning of the affected Fiscal Year. In the event that one party provides the other party with notice of its intention to terminate, the parties will meet promptly to discuss the reasons for the notice and to try to resolve their differences.

MEMORANDUM OF AGREEMENT-CAVE MONITORING

ARTICLE VI – SIGNATURES

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date(s) set forth below.

FOR THE KLAMATH NETWORK INVENTORY AND MONITORING PROGRAM:

Signature: _____

Name: _____

Title: _____

Date: _____

FOR LAVA BEDS NATIONAL MONUMENT:

Signature: _____

Name: _____

Title: _____

Date: _____

FOR OREGON CAVES NATIONAL MONUMENT:

Signature: _____

Name: _____

Title: _____

Date: _____